



EARTHJUSTICE

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April 29, 2008

VIA CERTIFIED MAIL
7099-3400-0009-9824-9870

Stephen L. Johnson, Administrator
United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Intent to Sue the Administrator of EPA for Failure to Perform Its Mandatory Duty to
Promulgate Numeric Nutrient Criteria for the State of Florida As Required by Section
303(c)(4)(B) of the Clean Water Act

Dear Mr. Johnson,

Florida's 2006 Integrated Water Assessment¹ found that 50% of Florida's river and stream miles, 60% of Florida's lakes (excluding the 730 square miles of Lake Okeechobee), and 60% of the square miles of Florida's estuaries had poor water quality. Nutrient pollution was the major concern for both surface and groundwater. Specifically listed major water quality concerns included: 1) documentation of increasing levels of nutrients in Florida's surface waters since the 1970s, 2) water quality declines in springs associated with increases in nitrate levels (nitrate is a nutrient); 3) freshwater harmful algal blooms which were increasing in frequency, duration, and magnitude which posed a significant threat to surface drinking water resources and recreational areas; 4) abundant populations of blue green algae (cyanobacteria) capable of producing health threatening toxins in rivers and lakes; and 5) the finding of levels of these cyanotoxins above suggested guidelines in finished drinking water from some drinking water facilities.

As the Assessment explained, blooms of cyanobacteria are due, in most part, to high nutrient loads, slow moving waters, and hot, humid, and stagnant conditions, all of which are typically found in Florida. Potentially toxigenic cyanobacteria have been found statewide, including river and stream systems such as the St. Johns River in the Northeast Region, the Caloosahatchee River in the Southwest Region, and the Peace and Kissimmee Rivers in the Central Region. In the Southeast Region, toxin levels in the St. Lucie River and estuary during an algae bloom in 2005 were three hundred times above suggested drinking water limits and sixty times above suggested recreational limits. Warning signs had to be posted by local health authorities warning visitors and residents not to come into contact with the water. Lake Okeechobee, which is categorized under state regulations as a drinking water source, is now subject to almost year round blue-green algae blooms as a result of nutrient pollution.

¹ Florida Department of Environmental Protection, "Integrated Water Quality Assessment for Florida: 2006 305(b) Report and 303(d) List Update," May 2, 2006. Found at http://www.dep.state.fl.us/water/tmdl/docs/2006_Integrated_Report.pdf

Florida's estuaries and coastal ocean have likewise been plagued with harmful algal blooms associated with nutrient over-enrichment, including macroalgae (seaweed) blooms which displace seagrass and overgrow coral reef ecosystems and novel and toxic dinoflagellate (red tide) blooms. Specifically, blooms of the red tide organism, *Karenia brevis*, have become increasingly more frequent, more intense, and of longer duration along the southwest coast of Florida. The evidence suggests that these red tide blooms are associated with the nutrification of the West Florida Shelf (WFS) that has resulted from escalating nutrient loads from unmitigated land-based sources of nutrient pollution. The linkage of these type of coastal harmful algal bloom phenomena with increasing land-based nutrient pollution has been critically reviewed by the National Academy of Sciences "Clean Coastal Waters: Understanding the effects of nutrient pollution (2000)" study.²

EPA understands the threat of toxic algae blooms having recently declared portions of the Klamath River in California impaired by toxic blue-green algae.³ Scientists have also found that the toxins produced by these Klamath River blooms bioaccumulate in the muscle tissue of fish creating yet another significant health threat resulting from algae impaired waters.⁴

The primary reason nutrient pollution has continued to increase is that many states, including Florida, adopted *narrative* nutrient criteria rather than set measurable numeric levels as is done with all other pollutants. In Florida, that standard is as follows:

*Nutrients: In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora and fauna.*⁵

Whether this narrative standard was being violated was the subject of the lawsuit brought by the United States against the South Florida Water Management District and the Florida Department of Environmental Protection in 1988. The lawsuit alleged that the natural flora and fauna of the Loxahatchee National Wildlife Refuge were being destroyed by discharges of high levels of phosphorus into the Refuge. The remedy the United States sought was that a numeric nutrient standard for phosphorus be set to replace the narrative standards.⁶ The consent decree in that case required that a numeric standard be set. The reason was obvious – without a numeric standard it would have been impossible to tell whether the goals of the consent decree were being met. In compliance with the consent decree, Florida developed a numeric standard of 10 parts per billion phosphorus for waters in the Refuge and other parts of the Everglades. This lawsuit over nutrient pollution generated the multi-billion dollar Everglades Restoration Project.

² Found at http://www.nap.edu/catalog.php?record_id=9812#toc

³ Klamath Riverkeeper, "Klamath Dam Removal Advocates Win Major Victory In Dams Toxics Case," March 20, 2008. Found at <http://www.klamathriver.org/Press-Release-032008>

⁴ Dan Bacher, "Algae Toxins Found in Yellow Perch on Klamath River Reservoirs," April, 10, 2008. Found at <http://www.indybay.org/newsitems/2008/04/10/18491952.php>

⁵ Rule 62-302.530(47)(b), Florida Administrative Code. Found at <https://www.flrules.org/gateway/readFile.asp?sid=0&type=1&tid=3295010&file=62-302.530.doc>

⁶ U.S. v. South Florida Water Management Dist., 922 F.2d 704, 707-08 (11th Cir.1991).

In 1998, the United States Environmental Protection Agency determined that prompt development of numeric nutrient standards by all states was necessary to meet the requirements of the Clean Water Act given that: 1) nutrient pollution had recently been reported to be the leading cause of impairment in lakes and coastal waters and the second leading cause of impairment in rivers and streams; 2) nutrient pollution had been linked to the dead zone in the Gulf of Mexico; and 3) nutrient pollution had been linked to outbreaks of toxic organisms along the Mid-Atlantic Coast.⁷ According to EPA's plan to deal with this major source of pollution, all states were required to develop numeric nutrient standards that supported designated uses by 2003, or EPA would step into the breach and develop standards for them.

On May 25, 2007, EPA's Office of Water issued a bleak report on the states' efforts.⁸ As of that date, the majority of states were still at the level of collecting data and many were "just starting the criteria process." The reason for the delay was not because EPA had changed its mind that numeric criteria were necessary to meet the requirements of the Act. As the Office of Water wrote:

High nitrogen and phosphorus loading, or nutrient pollution, results in harmful algal blooms, reduced spawning grounds and nursery habitats, fish kills, oxygen-starved hypoxic or "dead" zones, and public health concerns related to impaired drinking water sources and increased exposure to toxic microbes such as cyanobacteria. Nutrient problems can exhibit themselves locally or much further downstream leading to degraded estuaries, lakes and reservoirs, and to hypoxic zones where fish and aquatic life can no longer survive.

* * * *

Virtually every State and Territory is impacted by nutrient-related degradation of our waterways. All but one State and two Territories have Clean Water Act Section 303(d) listed impairments for nutrient pollution. States have listed over 10,000 nutrient and nutrient-related impairments. Fifteen states have more than 200 nutrient-related listings each.

The Office of Water also explained that numeric nutrient criteria were needed to address this "major source of environmental degradation" because "[a]s any environmental professional understands, we can't effectively manage what we can't measure." Adoption of numeric criteria would allow for:

- Easier and faster development of TMDLs
- Quantitative targets to support trading programs
- Easier to write protective NPDES permits
- Increased effectiveness in evaluating success of nutrient runoff minimization programs
- Measurable, objective, water quality baselines against which to measure environmental progress

⁷ United States Environmental Protection Agency, "National Strategy for the Development of Regional Nutrient Criteria," June 1998. Found at <http://www.epa.gov/waterscience/criteria/nutrient/strategy/nutstra3.pdf>

⁸ Benjamin H. Grumbles, Memo on "Nutrient Pollution and Numeric Water Quality Standards," May 25, 2007. Found at <http://www.epa.gov/waterscience/criteria/nutrient/files/policy20070525.pdf>

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Having determined that numeric standards were necessary to meet the requirements of the Act in 1998, the Administrator fell under a mandatory duty to promptly promulgate numeric standards for the states as required by section 303(c)(4)(B) of the Clean Water Act. Florida has failed to develop narrative nutrient criteria. However, not only has EPA failed to take action, it has consistently permitted Florida to postpone its adoption of numeric standards to the point where EPA recently approved a plan that would have numeric standards, at best, being "proposed" by 2012.⁹

The Florida Wildlife Federation, the Sierra Club, and the Conservancy of Southwest Florida hereby notify the Administrator of their intent to sue under section 505(a)(2) of the Clean Water Act over the Administrator's failure to comply with its mandatory duty under section 303(c)(4)(B) of the Act to promptly set numeric nutrient criteria for the state of Florida, it having determined that the standards were necessary to meet the requirements of the Clean Water Act in 1998.

Sincerely,



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⁹ Florida Department of Environmental Protection, "State of Florida: Numeric Nutrient Criteria Development Plan," September 2007. The plan is not posted on the FDEP website nor is EPA's approval letter.